Spring 2007

AN ECONOMIC EDUCATION NEWSLETTER

INTERSECTIONS

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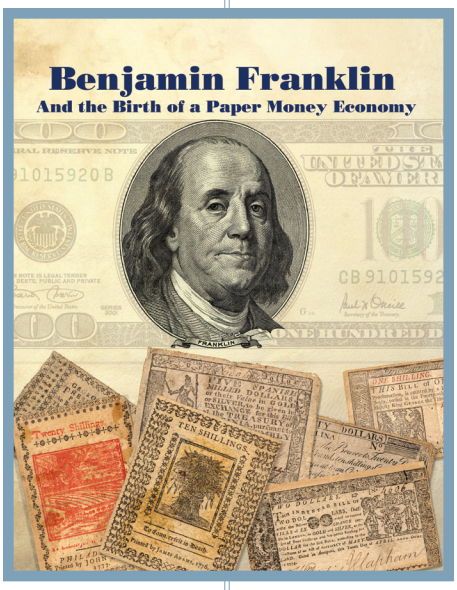
FEDERAL RESERVE BANK OF PHILADELPHIA

www.philadelphiafed.org

Federal Reserve Bank of Philadelphia Releases New Benjamin Franklin Publication

The Federal Reserve Bank of Philadelphia has released a new publication entitled *Benjamin Franklin and the Birth of a Paper Money Economy* by Professor Farley Grubb, an economics professor at the University of Delaware and researcher with the National Bureau of Economic Research. The new publication is based on a lecture given at the Reserve Bank by Professor Grubb on March 30, 2006. The lecture, co-sponsored by the Reserve Bank and the Library Company of Philadelphia, was one of many events held in Philadelphia to mark the 300th birthday of Benjamin Franklin.



The new publication describes Benjamin Franklin's involvement in colonial paper money and his role in the creation of a permanent peacetime paper money supply in the new nation. Franklin arrived in Philadelphia in 1723, the year the first paper money was issued by the colonial government of Pennsylvania. Franklin became a keen observer of and commentator on colonial money. He wrote pamphlets, treatises, and letters about paper money. He designed and printed paper money for various colonies, including Pennsylvania and New Jersey. In 1737 Franklin invented the art of nature printing from leaf casts, using a copper plate press, for transferring a sage leaf image onto the back of paper money bills, a technique intended to thwart counterfeiters.

In his writings, Franklin explained that paper money backed by gold and silver, such as those bank notes used throughout Europe, did not have a permanent value. Rather, the value of paper money backed by gold and silver fluctuated as new discoveries of the precious metals were made. Franklin supported using land, which was more stable in value than precious metals, to back paper money. Franklin argued that paper money backed by land would stabilize the quantity of paper money issued and with it stabilize trade in the colonies. In 1765, Franklin proposed to the British government a universal paper currency in the North American colonies to be backed by land values.

During the Revolution, the Continental Congress issued paper money—the Continental dollar. In 1781, Franklin wrote an essay entitled "Of the Paper Money of America," in which he argued that the depreciation of the Continental dollar operated as a tax paid by everyone as the money depreciated. In 1783 Franklin wrote a letter to Joseph Quincy in which he claimed that he had predicted the massive depreciation of the Continental dollar and had proposed a better paper money system, but that Congress had rejected it.

Copies of the new publication can be ordered in class sets free of charge from the Federal Reserve Bank of Philadelphia. To order copies, visit the Federal Reserve System's Public Information catalog online at www.newyorkfed.org/publications.

The Case of the Gigantic $100,000 Bill

Lesson by Andrew T. Hill, Ph.D.*

Lesson Description

In this lesson, students participate in a demonstration of the money creation process using a large $100,000 bill. Expansions of the money supply caused by successive deposits and loans are traced on the board so that students can observe the process. Required reserves are cut from the large bill during each stage of the process. Students learn to calculate the upper bound of the money creation process using the simple money multiplier.

Grades

9-12

Economic Concepts

Money creation
Money multiplier
Money supply

Content Standards

- Voluntary National Content Standards in Economics—Content Standard 20
- Delaware—Economics Standards: Standard 2
- Pennsylvania—Academic Standards in Economics: 6.2.9 and 6.2.12
- New Jersey—Social Studies Standards: Standard 6.5

Objectives

Students will be able to:

1. Demonstrate how successive deposits and loans by depository institutions cause the money supply to expand.
2. Calculate the simple money multiplier when a required reserve ratio is provided.
3. Explain that money is created when banks make loans and destroyed when loans are repaid.

Time Required

60 minutes

Materials

Transparency of Activity 1
Activity 1, one copy per student

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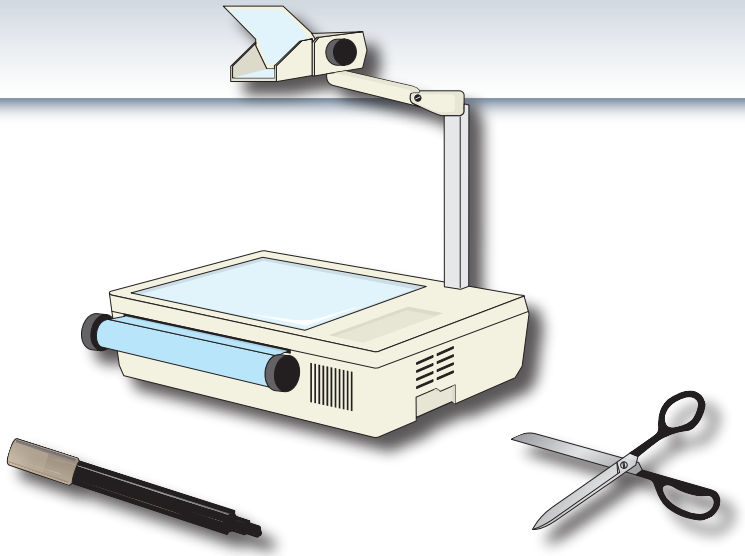
* This lesson is based on "How Depository Institutions Create Money," Federal Reserve Bank of Minneapolis, 1982.

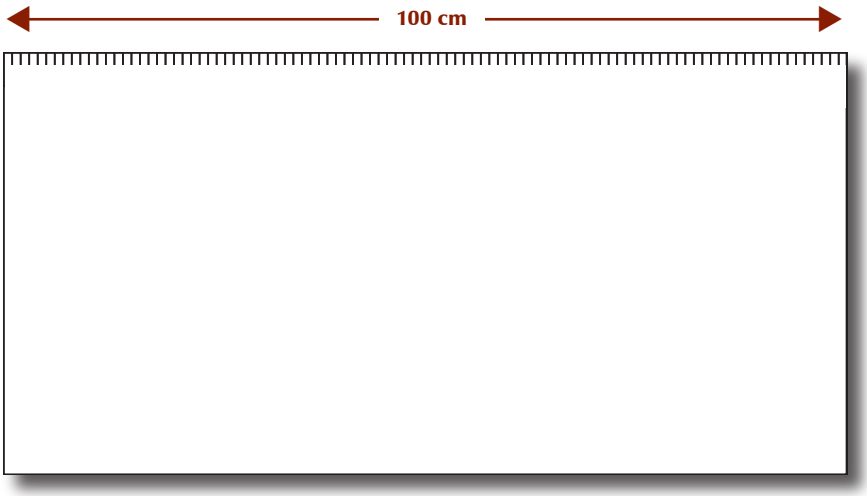
A roll of bulletin board paper
Chalk, dry erase marker, or poster marker
Construction paper or card stock
Masking tape
Meter stick
Overhead projector
Overhead projector pen
Poster marker
Scissors



Preparation

1. Cut a piece of paper 1 meter by 50 centimeters. This piece of paper will be the gigantic $100,000 bill for the lesson. You can decorate the paper to look like an actual $100,000 gold certificate. An example of a $100,000 gold certificate can be found on this page and at http://www.philadelphiafed.org/money_in_motion/trove_changing-money-25c.html

2. On the front of the $100,000 bill, mark off each centimeter along the top of the bill as shown in the illustration below:



3. If your chalkboard or whiteboard is not at least 5 meters long, affix paper for 5 meters along a bulletin board or wall in your classroom. This space on your chalkboard, whiteboard, or bulletin board will be where the Keeper of the Money Supply will trace the gigantic $100,000 at the beginning of each round of the activity.

4. Using construction paper or card stock, prepare a name tag for each of the following roles: Keeper of the Money Supply, Bankers A through E (five students), Borrowers 1 through 4 (four students), and the Mathematician.

5. Establish a place where you can display a transparency of Activity 1 without interfering with the space where the Keeper of the Money Supply will trace the gigantic $100,000 bill at the beginning of each round.

Procedure

1. Explain that the class has an interesting word problem to solve. Write the following word problem on the board: "Suppose Jack purchased 100 beans at the market. When he plants those beans at home, the resulting beanstalk produces five times as many beans as he planted. How many beans grew on the beanstalk?" Give the students a minute to read the question. Ask the students how many beans grew on the beanstalk. (*500*)

2. Ask the students if they think there is a way for money to be created in the same way. (*Most will say no.*) Ask the students who they think creates money. (*Answers will vary, but some will say that the government creates money.*) Explain to the students that in this class, they are going to explore the process by which banks create money.

3. Show the gigantic $100,000 bill. Explain that today the highest denomination note printed in the United States is the $100 Federal Reserve note, but in the first half of the 20th century, there were larger denomination notes. The largest denomination note ever issued by the United States was the $100,000 gold certificate, which was primarily used for transfers among Federal Reserve Banks. (Note: If you have access to the Internet in your classroom, you may want to show your students the $100,000 gold certificate shown on the web page listed in the preparation section of this lesson.)

4. Explain that the **money supply** is the total amount of money available in the economy to purchase goods and services. The simplest measure of the U.S. money supply includes coins and paper currency as well as all deposits in banks and savings institutions on which checks can be drawn. In this activity, the money supply will be total deposits at depository institutions plus all currency in circulation.

5. Remind students that when people deposit money in a bank, banks hold on to some of the deposited money as reserves but lend the rest of it. Banks make money by charging a higher rate of interest on the loans they make than the rate they pay on deposits. Remind students that in the United States, there are reserve requirements set by the Federal Reserve. While banks do not hold reserves simply because they are required to and they may choose to hold more reserves than they are required to, in this activity students should assume that banks hold only the reserves they are required to and lend the rest of the money they have on deposit. Point out that the highest required reserve ratio in the United States today is 10 percent, but to make the activity work more easily, students are going to assume a 20 percent required reserve ratio in this activity.

6. Ask for a volunteer from the class to serve as the Keeper of the Money Supply. Ask that student to come to the front of the room and give her chalk or a marker so that she will be able to trace the large $100,000 bill onto the chalkboard, whiteboard, bulletin board, or wall prepared for this purpose. Give the student the name tag for her role and the gigantic $100,000 bill prepared before class. Ask her to tape on her name tag.

7. Ask five students to volunteer to be Bankers. Give each Banker a name tag and ask them to stand in the front of the room facing the class. Ask the Bankers to tape on their name tags.

8. Ask four students to volunteer to be Borrowers. Give each a Borrower name tag and ask them to stand in one corner of the room and wait to take out a loan from one of the depository institutions. Ask the Borrowers to tape on their name tags.

9. Ask one student to serve as the Mathematician. Give the Mathematician her name tag and a pair of scissors. Explain that the Mathematician will be responsible for calculating the required reserve amounts for each depository institution and the total funds available for loans and for recording those figures on the ledger entries on the visual of Activity 1. This student will remain close to the Keeper of the Money Supply and will cut off the required reserve amount from the gigantic $100,000 bill. Ask the Mathematician to tape on her name tag.

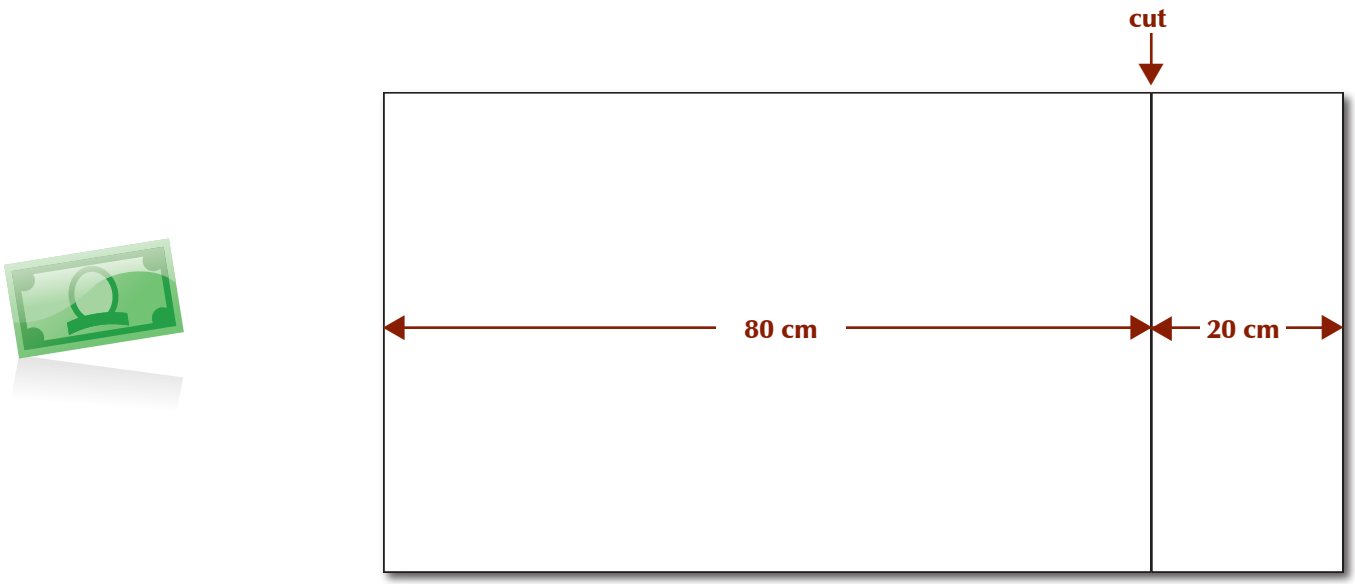
10. Distribute one copy of Activity 1 to each student. Explain to the students that they will record the deposits, required reserves, and amount available for loans in the ledger entries for each depository institution during each round of the activity. They will also record the amount of the expansion of the money supply in each round on the right side of the activity.

11. Direct the Keeper of the Money Supply to trace the gigantic $100,000 bill onto the space prepared for this purpose. The tracing should be done on the left so that successive money supply entries can be noted to the right of this tracing. Explain that the Keeper of the Money Supply found this $100,000 bill under the floorboards in her house. Direct the students to record this $100,000 starting point in the space provided on Activity 1. Instruct the Mathematician to record it on the transparency of Activity 1. Ask the students the size of the money supply. (*total deposits + currency in circulation = $0 + $100,000=$100,000*)

12. Instruct the Keeper of the Money Supply to deposit the $100,000 bill into Depository Institution A. Instruct Banker A to take the $100,000 bill from the Keeper of the Money Supply and record the $100,000 deposit on the transparency of Activity 1 in the ledger entries for Depository Institution A.

13. Ask the Mathematician to calculate the required reserves associated with the $100,000 deposit into Depository Institution A and record it on the transparency. (*$100,000 x 20%=$20,000*) Direct the Mathematician to calculate and record the amount available for loans on the transparency. (*$100,000-$20,000=$80,000*) Instruct the students to complete the ledger entry for Depository Institution A on Activity 1.

14. Explain that each centimeter on the gigantic $100,000 represents $1,000. Show the students that centimeters are marked along the top of the bill. Ask the students how much of the $100,000 bill should be cut off to be kept at Depository Institution A to fulfill required reserves. (*20 centimeters—equivalent to $20,000*) Direct the Mathematician to cut the required reserves off the $100,000 bill using the scissors. Direct the Mathematician to return both parts of the $100,000 bill to Banker A. The bill should have been cut into two pieces along the line delineated in the picture below. The ledger entries for Depository Institution A should look like the entries in the table below.



Depository Institution A	
Deposit	$100,000
Required Reserves (20% reserve requirement)	$ 20,000
Amount Available for Loans	$ 80,000

15. Begin Round 1. Ask what Depository Institution A will do now. (*Loan out $80,000.*) Instruct Borrower 1 to come forward and request a loan from Banker A. Instruct Banker A to give Borrower 1 the larger portion of the bill and retain the smaller portion as reserves. Point out that in real life Borrower 1 might actually be more than one individual or business. Ask the students what the size of the money supply is now. (*total deposits + currency in circulation = $100,000 + $80,000 = $180,000*)

16. Direct Borrower 1 to allow the Keeper of the Money Supply to trace the $80,000 bill directly adjacent to the tracing of the original $100,000. Direct the students to record this $80,000 money supply expansion in the space provided for Round 1 on Activity 1 and the Mathematician to record this same amount on the transparency. The tracings should now look like the diagram below:

$100,000	**$80,000**

17. Direct Banker B to come forward. Direct Borrower 1 to deposit the $80,000 in Depository Institution B. Instruct Banker B to take the $80,000 bill from Borrower 1 and record the $80,000 deposit on the transparency in the ledger entry for Depository Institution B. Explain that in real life, Borrower 1 would invest or spend the $80,000 and someone else would be depositing it in Depository Institution B.

18. Ask the Mathematician to calculate the required reserves associated with the $80,000 deposit into Depository Institution B and record it on the transparency. (*$80,000 x 20% = $16,000*) Direct the Mathematician to calculate and record the amount available for loans on the transparency. (*$80,000 - $16,000 = $64,000*) Instruct the students to complete the ledger entries for Depository Institution B on Activity 1.

19. Ask the students how much of the $80,000 bill should be cut off to be kept at Depository Institution B to fulfill reserve requirements. (*16 centimeters—equivalent to $16,000)* Direct the Mathematician to cut the required reserves off the $80,000 bill and return both parts of the $80,000 bill to Banker B. The bill has now been cut into three pieces—one 20 cm wide, one 16 cm wide, and one 64 cm wide. The ledger entries for Depository Institution B should look like the entries in the table below.

Depository Institution B	
Deposit	$ 80,000
Required Reserves (20% reserve requirement)	$ 16,000
Amount Available for Loans	$ 64,000

20. Begin Round 2. Ask what Depository Institution B will do now. (*Loan out $64,000.*) Instruct Borrower 2 to come forward and request a loan from Banker B. Instruct Banker B to give Borrower 2 the larger portion of the bill and retain the 16 cm wide portion as reserves. Point out that in real life Borrower 2 might actually be more than one individual or business. Ask the students what the size of the money supply is now. (*total deposits + currency in circulation = [$100,000 + $80,000] + $64,000 = $244,000*)

21. Direct Borrower 2 to allow the Keeper of the Money Supply to trace the $64,000 bill to the right of the tracing of the $80,000 bill. Direct the students to record this $64,000 expansion of the money supply in the space provided for Round 2 on Activity 1 and ask the Mathematician to record this same amount on the transparency.

22. Direct Banker C to come forward. Direct Borrower 2 to deposit the $64,000 in Depository Institution C. Instruct Banker C to take the $64,000 bill from Borrower 2 and record the $64,000 deposit on the transparency in the ledger entry for Depository Institution C. Explain that in real life, Borrower 2 would invest or spend the $64,000 and someone else would be depositing it in Depository Institution C.

23. Ask the Mathematician to calculate the required reserves associated with the $64,000 deposit into Depository Institution C and record it on the transparency. (*$64,000 x 20% = $12,800*) Direct the Mathematician to calculate and record the amount available for loans on the transparency. (*$64,000 - $12,800 = $51,200*) Instruct the students to complete the ledger for Depository Institution C on Activity 1.

24. Ask the students how much of the $64,000 bill should be cut off to be kept at Depository Institution C to fulfill reserve requirements. (*12.8 centimeters—equivalent to $12,800*) Direct the Mathematician to cut the required reserves off the $64,000 bill and return both parts of the bill to Banker C. The ledger entries for Depository Institution C should look like the entries in the table below.

Depository Institution C	
Deposit	$ 64,000
Required Reserves (20% reserve requirement)	$ 12,800
Amount Available for Loans	$ 51,200

25. Repeat the process of making loans and deposits, tracing the expansions of the money supply, calculating and cutting reserves, and completing Activity 1 until two additional rounds have been completed. The money supply expansions in Rounds 3 and 4 are $51,200 and $40,960, respectively. The ledger entries for Depository Institutions D and E should look like the entries in the tables below.

Depository Institution D	
Deposit	$ 51,200
Required Reserves (20% reserve requirement)	$ 10,240
Amount Available for Loans	$ 40,960

Depository Institution E	
Deposit	$ 40,960
Required Reserves (20% reserve requirement)	$ 8,192
Amount Available for Loans	$ 32,768

26. Discuss the following:

- Although the U.S. Mint produces coins and the Bureau of Engraving and Printing prints Federal Reserve notes, money is created when one bank's loan becomes another bank's deposit and that bank uses much of the deposit to make another loan.

- Since money includes all currency in circulation plus total deposits in depository institutions, the process of lending and depositing in successive banks creates money. This process of successive loans and deposits is called **money creation.**

- The money creation process is limited by the amount of reserves banks choose to hold and can be affected by the amount actually deposited in depository institutions, but reserve requirements delineate an upper bound on the amount by which money can be created through the successive deposit and loan process.

- The simple **money multiplier** is the amount that an initial $1 increase in excess reserves will eventually add to the money supply if banks lend all but their required reserves and all of the borrowed money is deposited into a depository institution. The money multiplier can be found by dividing the required reserve ratio into one.

27. Write the following equation on the board:

$$\text{money multiplier} = \frac{1}{\text{required reserve ratio}}$$

28. Discuss the following:

a. What is the money multiplier for our example with a required reserve ratio of 20 percent? (*1 ÷ 0.20 = 5*)

b. With the $100,000 initial deposit, excess reserves were $100,000-$20,000=$80,000. What is the total amount the money supply could expand in our example? (*$80,000 x 5.0 = $400,000*) Enter $400,000 in the blank at the bottom of the Money Supply Expansion column on the transparency of Activity 1 and instruct the students to do the same on Activity 1.

c. If we continued tracing and cutting the gigantic bill from the activity until the money creation process was finished, how much total space would we need for the completed tracings? (*5 meters*)

d. If the Federal Reserve raised the required reserve ratio from 20 percent to 25 percent, how would the activity have been different? (*The money multiplier would be 1 ÷ 0.25 = 4. Only $300,000 would have been created by the process. Only 4 meters would have been necessary to trace the initial deposit and all of the money supply expansions.*) Explain that the Federal Reserve changes reserve requirements very infrequently and last changed them in 1992.

e. If we had used the actual maximum U.S. required reserve ratio of 10 percent, how would the activity have been different? (*The money multiplier would be 1 ÷ 0.10 = 10. $900,000 would have been created by the process. Ten meters would have been required to trace the initial deposit and all of the money supply expansions.*)

f. If money is created when banks make loans, how is money destroyed? (*Answers will vary.*) Explain that money is destroyed when loans are repaid. However, when a loan is repaid, the depository institution is likely to make another loan with the proceeds from the repaid loan. Therefore, money is usually recreated to replace the money destroyed when the loan was repaid.

Closure

1. How is money created? (*by banks lending money*)

2. How is money destroyed? (*by loans being repaid*)

3. What is the relationship between the money multiplier and the required reserve ratio? (*The money multiplier is one divided by the required reserve ratio.*)

4. Given an initial deposit in the banking system, what is the upper bound of the expansion of the money supply that will be caused by that deposit? (*the amount of the deposit multiplied by the money multiplier*)

Assessment

You were recently walking by the U.S. Mint in Philadelphia and you heard one tourist say the following to another tourist: "All of the money in the United States is created in this mint and the U.S. Mint in Denver, Colorado. It sure is amazing to think that every dollar you have ever saved or spent was created in either this building or the one in Denver!" Write a one-page essay in which you evaluate the tourist's statement for accuracy.

Permission is granted to reprint or photocopy this lesson in its entirety for educational purposes provided the user credits the Federal Reserve Bank of Philadelphia.

Money Creation Worksheet

Ledger Entries

Depository Institution A

Deposit $ _____

Required Reserves (20% reserve requirement) $ _____

Amount Available for Loans $ _____

Depository Institution B

Deposit $ _____

Required Reserves (20% reserve requirement) $ _____

Amount Available for Loans $ _____

Depository Institution C

Deposit $ _____

Required Reserves (20% reserve requirement) $ _____

Amount Available for Loans $ _____

Depository Institution D

Deposit $ _____

Required Reserves (20% reserve requirement) $ _____

Amount Available for Loans $ _____

Depository Institution E

Deposit $ _____

Required Reserves (20% reserve requirement) $ _____

Amount Available for Loans $ _____

Money Supply Expansion

Starting Point

$ _____

Round 1

Expansion = $ _____

Round 2

Expansion = $ _____

Round 3

Expansion = $ _____

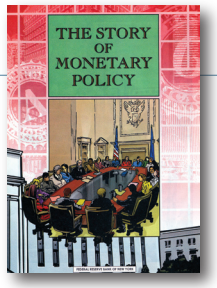
Round 4

Expansion = $ _____

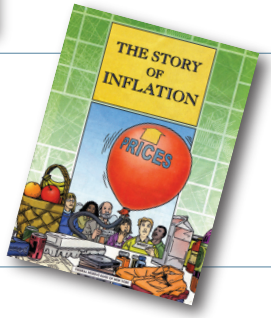
Continues until a total of $ _____ has been created.

The Resource Rack

The Federal Reserve System has many publications and online resources available for classroom use. Most are available in classroom sets free of charge.

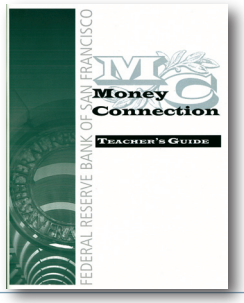


The Story of Monetary Policy
Explains the meaning and purpose of monetary policy, how the Fed makes monetary policy, and how the tools of monetary policy work.
Published by the Federal Reserve Bank of New York
Order at www.newyorkfed.org/publications



The Story of Inflation
Describes the causes and effects of inflation and discusses alternative anti-inflation policies.
Published by the Federal Reserve Bank of New York
Order at www.newyorkfed.org/publications

Wishes and Rainbows
Uses a children's story to illustrate the economic problem of scarce resources and society's reactions to such problems. An accompanying teacher's guide, "The Road to Roota," is available. Recently redesigned.
Published by the Federal Reserve Bank of Boston
Order at www.newyorkfed.org/publications



The Money Connection
Introduces money and banking concepts, as well as the Federal Reserve System, in a lively video for grades 4-8. An accompanying teacher's guide is available online at www.frbsf.org/education/curriculum/connectionteacher.html
Published by the Federal Reserve Bank of San Francisco
Order at www.newyorkfed.org/publications

education resourceguide*plus*

Education Resource Guide Plus
Presents Federal Reserve System education resources in a handy online format with downloadable tips for using the resources in K-12 classrooms and links for ordering class sets of publications free of charge.
Hosted by the Federal Reserve Bank of St. Louis
Available at www.stlouisfed.org/education/resourcetools

FederalReserve Education.org

FederalReserveEducation.org
FederalReserveEducation.org is the Federal Reserve System's portal to economic and personal financial education materials on the web. From the portal teachers and students can link to print and online resources offered by the 12 Reserve Banks and the Board of Governors.
Created by the Federal Reserve System
Available at www.federalreserveeducation.org

Bulletin Board

If you want to learn more about these events, see the contact information at the end of the Bulletin Board.

Mathematics and Economics for the Elementary Classroom

Registration Deadline: July 25, 2007

Register Online:
www.philadelphiafed.org/education

Note: *Registration is online only.*

WHEN	WHERE
August 7, 2007 8:30 a.m. – 3:30 p.m.	University of Pittsburgh at Johnstown 450 Schoolhouse Road, Johnstown, PA 15904
August 9, 2007 8:30 a.m. – 3:30 p.m.	Pennsylvania Office of Financial Education 17 North Second Street, Suite 1300 Harrisburg, PA 17101
August 14, 2007 8:30 a.m. – 3:30 p.m.	The Richard Stockton College of New Jersey Carnegie Library Center 35 S. Dr. MLK Jr. Blvd., Atlantic City, NJ 08401

What: This one-day professional development program introduces elementary school educators to economic concepts and how to teach them through mathematics. Participants will be taken through a series of simulations, role-playing activities, group activities, and classroom demonstrations. Taught by Federal Reserve economic education specialists, this program emphasizes active- and collaborative-learning teaching methodologies that help elementary school teachers meet state and national standards in mathematics, social studies, and economics.

Prerequisites: There are no prerequisites for this program. Open to grades 3-8 educators.

Cost: There is a $20 registration fee payable by credit card at time of registration. Your registration fee includes breakfast and lunch and a copy of the National Council on Economic Education's *Mathematics and Economics, Grades 3-5* lesson book. We accept MasterCard, Visa, and American Express. Registration fee is nonrefundable after the registration deadline.

Credit: Upon completion of the one-day program, teachers will receive six professional development hours in their respective states.

Economics in Action: Greatest Hits for Teaching High School Economics

Registration Deadline: July 25, 2007

Register Online:
www.philadelphiafed.org/education

Note: *Registration is online only.*

WHEN	WHERE
August 8, 2007 8:30 a.m. – 3:30 p.m.	University of Pittsburgh at Johnstown 450 Schoolhouse Road, Johnstown, PA 15904
August 10, 2007 8:30 a.m. – 3:30 p.m.	Pennsylvania Office of Financial Education 17 North Second Street, Suite 1300 Harrisburg, PA 17101
August 15, 2007 8:30 a.m. – 3:30 p.m.	The Richard Stockton College of New Jersey Carnegie Library Center 35 S. Dr. MLK Jr. Blvd., Atlantic City, NJ 08401

What: This one-day professional development program introduces educators to a series of simulations, role-playing activities, group activities, and classroom demonstrations designed to effectively teach high school students about economic concepts. Taught by Federal Reserve economic education specialists, this program emphasizes active- and collaborative-learning teaching methodologies that help high school educators meet state and national standards in social studies and economics.

Prerequisites: There are no prerequisites for this program. Open to grades 7-12 educators.

Cost: There is a $20 registration fee payable by credit card at time of registration. Your registration fee includes breakfast and lunch and a copy of the National Council on Economic Education's *Economics in Action: 14 Greatest Hits for Teaching High School Economics* lesson book. We accept MasterCard, Visa, and American Express. Registration fee is nonrefundable after the registration deadline.

Credit: Upon completion of the one-day program, teachers will receive six professional development hours in their respective states.

Making Sense of Money and Banking: A Course for Educators

Registration Deadline: July 2, 2007

Register Online:
www.philadelphiafed.org/education

Note: *Registration is online only.*

WHEN	WHERE
Participants are required to attend all five days.	
July 16 – 20, 2007 8:00 a.m. – 3:30 p.m.	Federal Reserve Bank of Philadelphia 7th and Arch Streets, Philadelphia, PA 19106

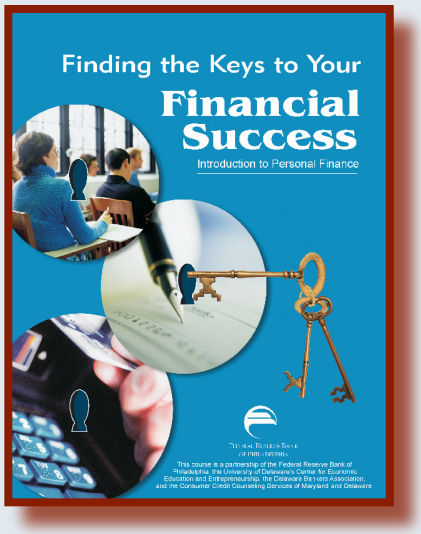
What: This five-day course, taught by Federal Reserve economists, economic education specialists, and staff from the state centers for economic education, covers money, banking, and the Federal Reserve System. It will include sessions on the history of central banking and how to choose a good economics lesson. Participants will also visit the sites of early central banking, which are part of Independence National Historical Park. Emphasis is placed on active- and collaborative-learning teaching methodologies and curricula for teaching money and banking in the K-12 classroom.

Prerequisites & Requirements: There are no prerequisites for this program. Open to K-12 educators. Participants are required to attend all five days.

Cost: There is a $50 registration fee payable by credit card at the time of registration. Your registration fee includes breakfast and lunch each day and all course materials. We accept MasterCard, Visa, and American Express. The registration fee is nonrefundable after the registration deadline.

Credit: Teachers who complete all five days of the program will receive 30 professional development hours in their respective states. OPTION: For a tuition fee, teachers may register with a partner institution to receive graduate credit.

For more information about these programs, contact:
Todd Zartman, Economic Education Specialist, Federal Reserve Bank of Philadelphia • todd.zartman@phil.frb.org



Interested in teaching high school students about personal finance?

"Keys to Financial Success," a comprehensive high school personal financial education program promoted by the Federal Reserve Bank of Philadelphia, provides teachers with the training, lessons, and materials necessary to teach students how to be financially savvy. The "Keys" course includes five units: Setting Financial Goals and the Decision Making Process; Career Planning—Investments in Human Capital; Money Management, including credit use; Consumer Skills; and Risk Protection. Schools that commit to offering the course receive extensive materials to teach the course, a one-week summer training program for "Keys" teachers, and pre- and post-testing of "Keys" students. If your school is looking to expand its course offerings or update an existing personal finance course, "Keys" could be a perfect fit for your school's current curriculum. Interested schools should contact Todd Zartman (todd.zartman@phil.frb.org), economic education specialist, at 215-574-6457.

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